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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,315	09/18/2003	Jerald W. Darlington JR.	28570/10289	7910

4743 7590 09/27/2005

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EXAMINER	
SANDERS, KRIELLION ANTIONETTE	
ART UNIT	**PAPER NUMBER**
1714	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,315	DARLINGTON ET AL.	
	Examiner	Art Unit	
	Kriellion A. Sanders	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-7 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 4/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Harriett, US Patent No. 4787780.

Applicant's invention pertains to a water-swellable composition to be secured to an area of potential water flow. The composition is a flexible, cohesive mass of:

1. A water-swellable layered material 10-90% by weight of the water-swellable, layered material
2. An elastomer 1-20% by weight of the water-swellable, layered material
3. A polypropene or polybutene 8-65% by weight of the water-swellable, layered material
4. A clay binder in an amount of 1-20% by weight of the water-swellable, layered material selected from:

i. A compound that liberates an onium ion from a compound that is ion-exchanged with the layered material

ii. A coupling agent that is reacted with the layered material

iii. Mixtures

Each of US Patent Nos. 4366284, 4534926, 4656062, 4668724, 4733989, 4787780 and 4810573 all to Harriett et al disclose conventional water-stop compositions that are clay-containing and water-swellable. Ishido et al provides similar teachings. These references are cited by applicant on form 1449.

The Harriett '780 is considered to be the most pertinent of the above references. The Harriett et al '780 invention relates to a method of waterproofing using a layered water sealing article of manufacture that includes a layer of a flexible sheet material adhered to a layer of a composition comprising a non-hydrated water-swellable clay intimately contacted with a polypropene, polybutene, or mixtures thereof. In one embodiment, the water swellable clay composition layer includes an elastomer such as a butyl rubber having sufficient resilience to stretch or expand with the expanding clay upon hydration. Another object of the invention is to provide a method of waterproofing using an article of manufacture including a flexible support sheet adhered to a non-hydrated, cohesive water-swellable clay composition which includes a water-swellable clay, polypropene and/or polybutene and an elastomer. the elastomer should be included in an amount of about 2% to about 10% based on the total weight of the clay composition layer. This multi-layer article of manufacture comprises a first layer of a clay composition including, (based on the total weight of the clay composition layer), 35% to 90% by

weight clay, and 10% to 64% polypropene, polybutene or mixture thereof, adhered to a second layer of a flexible sheet material and 1% to 20% of elastomer. The water-swellable colloidal clay utilized in the clay composition layer of the multi-layered articles used in the method of the patented invention is any water swellable colloidal clay which will hydrate in the presence of water, i.e., will swell in the presence of water. In accordance with one embodiment of the invention, the colloidal clay is bentonite. A preferred bentonite is sodium bentonite, which is basically a hydratable montmorillonite clay of the type generally found in the Black Hills region of South Dakota and Wyoming. This clay has sodium as a predominant exchange ion. However, the bentonite utilized in accordance with this embodiment of the invention may also contain other cations such as magnesium and iron. See col. 5, line 28 through col. 9, line 22.

The components of the Harriett '780 compositions are essentially the same as applicant's, and appear to be used in amounts that directly overlap the ratios of components set forth in applicant's claims. It would have been obvious to employ these components in the most beneficial amounts to achieve water-swelling properties within the guidelines of the patent.

The Harriett '573 patent is cumulative. See col. 5, line 39 through col. 9, line 68. Again, it would have been obvious to employ the components of this patent in the most beneficial amounts to achieve water-swelling properties within the guidelines of the patent.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 6:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kriellion A. Sanders
Primary Examiner
Art Unit 1714

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